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June 7, 2001

VIA HAND DELIVERY

RECEIVED
JUN 7 2001
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

EX PARTE

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TW-B204
Washington, D.C. 20554

Re: Notification of Ex Parte Communication in ET Docket No. 98-206 and Application of MDS America, Inc., for Radio Station Under Part 5 of FCC Rules – Experimental Radio Service, File No. 0095-EX-PL-2001.

Dear Ms. Salas:

On June 7, 2001, the attached letter was sent on behalf of Northpoint Technology, Ltd., to the following Commission officials:

Jane Mago, Office of the General Counsel
David Solomon, Enforcement Bureau
Bruce Franca, Office of Engineering and Technology
Donald Abelson, International Bureau
Thomas Sugrue, Wireless Telecommunications Bureau

Four copies of this letter are enclosed – two for inclusion in each of the above-referenced files. Please contact me if you have any questions.

Yours sincerely,

J. C. Rozendaal

Attachment

No. of Copies rec'd 0+4
List A B C D E

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June 7, 2001

VIA HAND DELIVERY **EX PARTE**

Ms. Jane Mago
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445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: Ex Parte Communication in ET Docket No. 98-206 and Application of MDS America, Inc., for Radio Station Under Part 5 of FCC Rules – Experimental Radio Service, File No. 0095-EX-PL-2001.

Dear Ms. Mago:

On May 9, 2001, we wrote to you on behalf of Northpoint Technology, Ltd., identifying misrepresentations made by MDS America, Inc. ("MDS") to the Commission in connection with the above-referenced proceedings.[1] In particular, our May 9 letter documented that MDS claims of co-frequency operation with the direct broadcast satellite services appeared to be false. On May 21, 2001, MDS responded to those charges but failed to rehabilitate its representations.[2] Not only does MDS now admit that much of the information provided to the Commission was false, but MDS has still failed to document a single case of true co-frequency operation with the DBS – much less the 20 commercial operations that MDS indicated in its experimental license application.

In its application for an experimental license, MDS represented to the Commission, among other things, (1) that "MDS International systems identical to this one are already functional in many places around the world where there exist ubiquitous DBS satellite customers,"[3] (2) that "[i]n years of commercial operation MDS

[1] Ex Parte Letter from Michael K. Kellogg to Jane Mago (FCC filed May 9, 2001)
[2] Ex Parte Letter from James W. Olson to Jane Mago (FCC filed May 21, 2001) ("MDS Letter").
[3] Application of MDS America, Inc., for Radio Station Under Part 5 of FCC Rules – Experimental Radio Service, File No. 0095-EX-PL-2001, Exhibit 2, at 1 (FCC Filed Apr. 20, 2001).

International has not faced interference problems with existing DBS systems,"[4] and (3) that "[a]t the present time, MDS's technology is the only commercially functioning MVDDS system in the world with more than 20 installations worldwide."[5] MDS America now admits that much of the information it provided to the Commission was incorrect and has acknowledged that MDS International ("MDSI") "does not operate systems itself except for the demonstration site near Lyon."[6] MDS says this resulted in "details of the operations of a few foreign systems unintentionally being reported incorrectly." [7]

MDS sought to bolster its claims of 20 commercially operating systems by reference to eight "representative" systems. As detailed in our May 9 letter, Northpoint was unable to verify that those eight supposedly representative systems were in fact currently operating commercially on a co-frequency basis with DBS service, as MDS claimed. It now appears that almost everything MDS previously told the Commission about those systems was wrong. In each case, the corrected information is less favorable to MDS. In no case does MDS demonstrate where its systems are currently operating on the same frequency as a DBS system without causing harmful interference. Seven of the eight original "representative" MDS sites are either not operating at all or are operating as point-to-point services. MDS identifies only one location where its equipment is providing point-to-multipoint DTH services (New Zealand), and this does not share spectrum with direct broadcast satellite DTH services. The following table summarizes the eight representatives sites, which MDS claimed demonstrated co-frequency operations with DBS in the 12.2-12.7 GHz band.

Table 1: Summary of MDS Operations Presented in MDS May 21 Filing

Location	System Detail	Status	DTH Service?	Current sharing documented
Korea	Test only	MDS: ". . .now seeking further information related to duration of test"	No	None
Almaty, Kazakhtan	Shipped equipment to location; use unknown	MDS: "We were not able to reach the operator to ascertain its current frequencies prior to filings this response."	No	None
Cork, Ireland	System tested by prospect; no operating license	Used band segmentation: (only "shared" frequency was 8 MHz away; acknowledges other frequencies tested were "close" or "adjacent" - not co-channel)	No	None
Andorra	Point to point system	Type the FCC no longer licenses in 12.2-12.7 GHz	No	None
Skopje, Macedonia	Point to point system	MDS: "After contacting MDS International in France, MDS America was informed that the Macedonia system	No	None

[4] *Id.*
[5] *Id.*
[6] MDS Letter at 2 n.3.
[7] *Id.*

		is no longer serving in a direct-to-home configuration and now serves as a mobile feed system."		
Serbia	Testing and education purposes of equipment customer	Band segmentation (operating 45 MHz away from nearest claimed satellite service)	No	None
Auckland, New Zealand	Commercial broadcast system	MDS: operates "quite close" to DBS frequencies. (Band segmentation)	Yes	None
Lyon, France	Test only	Band segmentation: Demonstrated transmission on adjacent frequencies only	No	None

MDS Fails to Document Satellite Terrestrial Sharing

Docket 98-206 is about ubiquitous sharing between DBS, NGSO and terrestrial services. Ubiquitous sharing with DBS means sharing at the *exact same frequency* at *the exact same time* in the *exact same location* and that the system does *not causing harmful interference to DBS at that exact location.* It is not enough to claim to have made a sale of microwave equipment to someone somewhere in the world. If any of these four elements are missing, then co-frequency sharing is not occurring. From the material presented in the MDS Letter as well as earlier Comments and Reply Comments, it is clear that MDS has failed to substantiate one or more of these four elements in each of the locations cited as "representative." MDS's failure properly to substantiate the claims it made to the Commission about its system's capabilities and track record calls into question its fitness to be a licensee.

Northpoint's May 9 letter examined each of the eight sites that MDS claimed were representative of its system of satellite-terrestrial sharing. The Northpoint letter concluded that, based on the information provided by MDS, it appeared that MDSI did not have even one location where MDSI had demonstrated that it was operating on the same frequency, at the same time in the same geographic area without interference to DBS. The assessment still stands.

Below, each of the MDS representative sites is examined again using information MDS presents in its letter of May 21. Again, the conclusion is clear – in not one case has MDS documented actual co-sharing with DBS where all the four necessary elements are present. However, MDS now disclaims detailed knowledge about what is actually happening at its 20 installations, or whether these installations are operational at all: "Because MDSI does not operate systems (except for Lyon), [MDS is] unable to ascertain the current operational status or usage of all of the systems MDSI has sold."[8]

Instead, MDS offers its Lyon demonstration site as the standard of MDS technical capacity. Review of this site is useful because it is clear that in this location MDSI is not sharing with DBS in the manner contemplated for terrestrial services in Docket 98-206.

[8] MDS Letter, Exh. 8 ¶ 9 (Declaration of Peter Blond).

In Lyon, MDSI is not operating on the same frequencies as the satellites with which it claims to share.

MDS Did Not Operate on the Same Frequencies as DBS at The Lyon Demonstration Site

In its May 21 letter, MDS provides a brief account of a "demonstration" at its Lyon location in the week of May 14 that it claims proves it can successfully share with satellites. At this location, MDS states that it received satellite signals at 12.6105 GHz and 12.669 GHz and then retransmitted them on 12.645 GHz.[9] The first satellite frequency, 12.6105 GHz, is 34.5 MHz removed from the MDS terrestrial frequency, 12.645 GHz. The second satellite frequency, 12.669 GHz is 24 MHz removed from the MDS terrestrial frequency. This is an example of band segmentation, *not a demonstration of satellite-terrestrial sharing.*

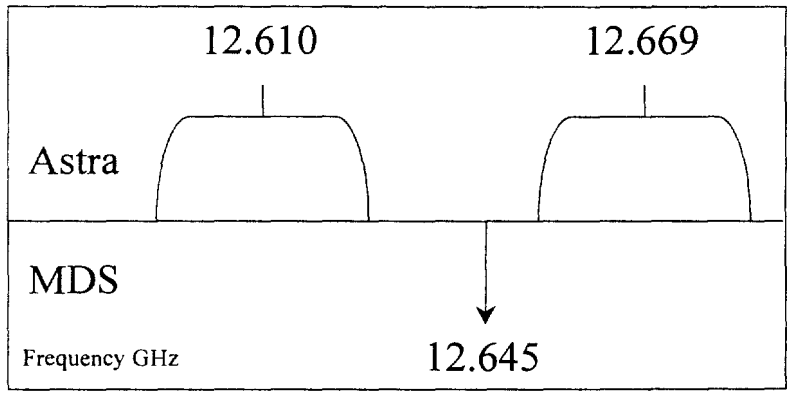

Figure 1: MDS Test in Lyon (typical MDS operation).

MDS also states that Northpoint erred when Northpoint wrote that BSS[10] does not have an allocation in Europe in the band 12.500-12.750 GHz. As is clear from the International Table of Allocations (reproduced below) Northpoint did not err. There is no allocation to the BSS in Region 1 (Europe). Thus, any satellite service operating within the band 12.500-12.750 GHz is not BSS service and MDS cannot be sharing with BSS at any claimed frequency within this band. However, the issue is not a matter of mere semantics. As described below, at the claimed locations in Europe, MDS does not appear to be truly sharing frequencies with satellites at all.

[9] MDS Letter at 5.

[10] The BSS (Broadcast Satellite Service) is the ITU designation for the service also known as DBS (Direct Broadcast Satellite) in the United States.

Allocation to services		
Region 1	**Region 2**	**Region 3**
11.7-12.5 FIXED BROADCASTING BROADCASTING-SATELLITE MOBILE except aeronautical mobile S5.487 S5.487A S5.492	**11.7-12.1** FIXED S5.486 FIXED-SATELLITE (space-to-Earth) S5.484A Mobile except aeronautical mobile S5.485 S5.488	**11.7-12.2** FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE S5.487 S5.487A S5.492
	12.1-12.2 FIXED-SATELLITE (space-to-Earth) S5.484A S5.485 S5.488 S5.489	
	12.2-12.7 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE S5.487A S5.488 S5.490 S5.492	**12.2-12.5** FIXED MOBILE except aeronautical mobile BROADCASTING S5.484A S5.487 S5.491
12.5-12.75 FIXED-SATELLITE (space-to-Earth) S5.484A (Earth-to-space) S5.494 S5.495 S5.496	**12.7-12.75** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile	**12.5-12.75** FIXED FIXED-SATELLITE (space-to-Earth) S5.484A MOBILE except aeronautical mobile BROADCASTING-SATELLITE S5.493

Based on the information in the MDS letter and filings, MDS systems seem to be operating in the Ku-band in the interstices between satellite frequencies, but this is not what MDS told the Commission. MDSI appears to have shown considerable resourcefulness in identifying frequencies that are not in use by DBS in particular locales. MDS may believe that this type of operation is satellite-terrestrial sharing, but it is not. It is simply band segmentation – sophisticated band segmentation, perhaps – but band segmentation nonetheless.

Examination of Specific Sites

Serbia – No Documented Sharing

MDS originally represented this as a commercial site that served subscribers. MDS now says that its equipment is used for "testing and educational purposes," operating at the frequency 11.907 GHz.[11] MDS states that this system is sharing with a satellite service operating at 11.9535 GHz.[12] The claimed terrestrial frequency is over 46 MHz away from the satellite signal. Thus, it is self evident that MDS is not, in fact, sharing with the satellite.

[11] MDS Letter at 13.
[12] *Id.*

Korea – No Operations; No Documented Sharing

MDS also now acknowledges that the Korea location, which it listed as commercial, was, at most, a test location. MDS states that its inaccurate characterization was due to a "misinterpretation" of data from MDSI and that it is "seeking further information relating to the duration of the Korea test."[13]

Almaty, Kazakhstan –Unknown Operating Status; No Documented Sharing

MDS originally claimed operations at 12.750-12.775 GHz at this location.[14] It now says that the transmitter it shipped to Almaty is capable of transmissions only within a range of 12.500-12.750 GHz.[15] Therefore, the MDS equipment is incapable of operating as MDS previously claimed. As to what frequencies are actually being used now, MDS attempts to hide its answer in a footnote: "We were not able to reach the operator to ascertain its current frequencies prior to filing this response."[16]

Cork, Ireland – No Operations; No Documented Sharing

MDS now admits its claimed Cork, Ireland location was a test site and is not operational. MDS does not dispute that the Southcoast Community Television is currently using UHF, not Ku frequencies. MDS submits a letter from Southcoast saying that MDS was operating on a carrier frequency of 12.355 GHz, which "shared" with BSS operations at 12.363 GHz and also operated "close and adjacent" to BSS signals at 12.341 GHz.[17] The latter point can be disposed of quickly: operations "close" to another frequency are not co-frequency operations, and Southcoast correctly does not claim that its MDS test system "shared" with frequencies 14 MHz away.

That leaves MDS's claim that the system 12.355 GHz operations were sharing with 12.363 GHz BSS signals. This arrangement does not demonstrate co-frequency operations, nor is it an example of the "frequency offset" interference mitigation technique, which MDS claimed in its Reply Comments on the MITRE report to have used with success.[18] The Northpoint frequency offset technique cited by MITRE is *not* what MDS was using in Ireland. In the Northpoint case, the terrestrial signal overlaps the entire DBS transponder, as shown in Figure 2. In the MDS case, by contrast, a minimal overlap, if any, occurs.

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[13] *Id.*
[14] Comments of MDS America, Inc., ET Docket 98-206, App. B at 6 (FCC filed Mar. 12, 2001).
[15] MDS Letter at 11.
[16] *Id.* at 11 n.41.
[17] MDS Letter, Exh. 4 (Letter from Edward O'Gorman to Whom It May Concern).
[18] Reply Comments of MDS America Inc., on the MITRE Report, ET Docket 98-206, at 4 (FCC filed May 23, 2001).

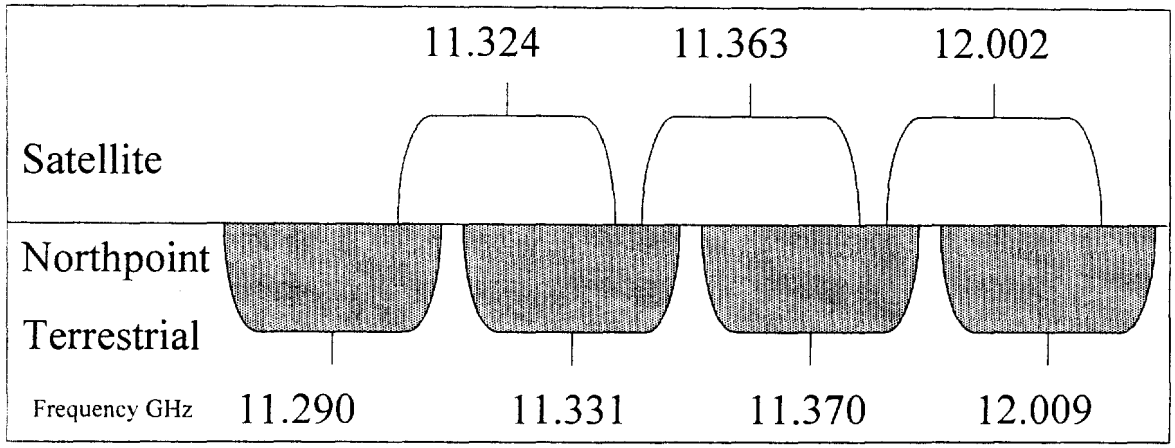

Figure 2: Proper use of frequency offset mitigation technique

Auckland, New Zealand – No Documented Sharing

MDS admits it was inaccurate when it claimed that the PAS-8 satellite system served New Zealand in the Ku Band.[19] Thus it was also inaccurate to say that the MDS Auckland terrestrial operation shared spectrum with this satellite. It is no defense for MDS to say that its list of New Zealand transponders "was meant to be illustrative and not comprehensive,"[20] since the list did not illustrate sharing. MDS's belated observation that PAS-2 does serve New Zealand in the Ku Band is beside the point, since MDS does not cite any claimed sharing with this satellite.[21]

With respect to the Auckland operations of the MDS equipment customer, IHUG, MDS states that the frequencies it originally claimed were operational are not actually being used in Auckland: "According to an email from IHUG, it broadcasts at 12.226 and 12.480,"[22] (rather than the previously claimed 12.338-12.410 GHz). MDS continues, "Thus, whether the user changed the frequencies, or the initial information from MDSI was inaccurate, the overlap discussion in our Initial Comments is not relevant to the current IHUG transmission frequencies."[23]

Here is how MDS describes the situation in Auckland at present: "Today, however, at 12.518 GHz, the Optus B1 satellite is currently broadcasting . . . to almost a quarter of a million customers, *quite close* to the IHUG 12.480 GHz frequency."[24] Even leaving aside the question whether a 38 MHz distance can properly be described as "quite close," MDS's statement constitutes an admission that it is not sharing with Optus B1. Just as a golf shot that lands "quite close" to the hole is not the same as one that lands in the hole, an MDS operation that come "quite close" to BSS frequencies is not the same as one that truly shares the same frequency.

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[19] MDS Letter at 10 n.29.
[20] *Id.*
[21] *Id.*
[22] *Id.* at 11; *id.*, Exh. 15 (Printout of e-mail from Brian Willicott to Kirk Kirkpatrick).
[23] *Id.* at 11.
[24] *Id.* (emphasis added).

Andorra: Point-to-Point Microwave System Only; No Document Sharing

MDS now admits it inaccurately portrayed the frequencies and function of its Andorra customer's equipment. MDS now acknowledges that this Andorra equipment is not a commercial broadcast system but a point-to-point microwave relay system.[25] The FCC no longer licenses such systems in the 12.2-12.7 GHz band.

Skopje, Macedonia: Point-to-Point Microwave System Only; No Documented Sharing

The text of MDS defense of Macedonia system is a lengthy attempt to assert that Astra's service in the Macedonia is really a DBS service even if it is not strong enough to be received with a DBS antenna. However, this discussion is made completely moot by a tiny detail that MDS attempts to hide in a footnote: "After contacting MDS International in France, MDS America was informed that the Macedonia system is no longer serving in a direct-to-home configuration and now serves as a mobile feed system."[26] As Northpoint understands this reference, such a system would probably be referred to in the United States as an electronic news gathering or ENG system. Such systems operate on an itinerant basis making point-to-point transmissions and require coordination with satellite services.[27] Such coordinated use cannot form the basis of a claim of ubiquitous co-frequency operation.

Conclusion of Site By Site Review

MDS has not documented that it is successfully sharing spectrum with satellites, as it had originally claimed.

MDS Letter Lacks Support

The MDS Letter contains numerous statements that appear to support the MDS claims, but actually do not.

Letter from the Embassy of France Does Not Support MDS Claims

An initial example of the MDS's lack of supporting documentation is found in the MDS statement that the French government has purchased MDS Ku-band equipment.[28] MDS states it did not describe the French sale in its previous filings, creating the inference that the French equipment sale could have been listed among the MDS

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[25] *Id.* at 12.
[26] *Id.* at 12 n.50.
[27] See, *e.g.*, Special Temporary Authorization of Advanced Broadcast Services Call Sign WA9XAE to operate a mobile feed system on a coordinated basis with DBS. The text of the STA states as a Special Condition that "[l]icensee must coordinate all frequencies with all DBS licensees prior to operation to avoid interference." Special Temporary Authorization, *Application of Advanced Broadcast Services for Experimental Broadcast Service Authorization*, File No. 0098-EX-ST-2000, at 2 (FCC rel. Mar. 21, 2000).
[28] MDS Letter at 3.

representative sites of satellite-terrestrial sharing.[29] To document the claimed sale, MDS submits a perfunctory letter from the Telecommunications Attache of the Embassy of France in the U.S. attesting to a sale of and ending with some *bon mots* wishing MDS well in its international efforts.[30] The Attache's letter provides no support to MDS's representations to the Commission that MDS has systems in operation that are successfully sharing with satellites, as a casual reader might infer from context of the MDS presentation of the Attache's letter.

ITU Reference to MDS Is Terrestrial Only – Not a System for Ubiquitous DBS-Terrestrial Sharing

In another example of citing facts that do not support the conclusion, MDS states "the International Telecommunications Union ['ITU'] has written favorably about the possibility of using MDSI technology to supply Africa with television and Internet access service."[31] A reader might conclude from this statement the ITU has endorsed an MDS system of satellite terrestrial sharing when in fact the ITU has done nothing of the kind. The ITU Report clearly references *a terrestrial only system.*[32] The ITU document does not mention any technology offered by MDSI that facilitates satellite terrestrial sharing. MDS does not clarify this to the Commission. Thus, the MDS reference to the ITU document is misleading and provides no support for MDS claims of successful spectrum sharing.

Satellite Channel Listing Does Not Identify a Specific Channel Where MDS Operates on the Same Frequency

The most voluminous example of unsupportive material in the MDS presentation is the over 200 pages of exhibits listing various satellite service transponders. In total between 2,000 and 2,500 transponders are listed. As shown above, in no case did MDS site a specific transponder whose center frequency it shared. Even the Astra listing in the main text of the MDS letter does not list a single channel that overlaps MDS's claimed operations at 12.645 GHz.[33] Thus, the voluminous listing refutes, rather than supports, the MDS claims of an ability to share frequencies with DBS.

Conax Did Not Attest to Co-Frequency Operations

The MDS letter states, "[t]he excellent results from the Lyon demonstration system were attested to by a recent visitor, Erik Andersen of Conax," who is quoted as saying, "I was amazed by the quality of reception and performance of what I saw." MDS implies that Mr. Andersen or Conax was attesting to the co-frequency operations of

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[29] *Id.*

[30] MDS Letter, Exh. 2 (Letter from Mr. Michel Combot to Kirk Kirkpatrick (May 17, 2001)). M. Combot's letter indicates that the system sold was a "Point to Multi-Point, (PMP)" system, a well-known type of terrestrial system.

[31] MDS Letter at 2; *see also id.* Exh. 1 (Excerpt from ITU Report *Support for the Development of the Global Information Infrastructure in Africa* (June 2000)).

[32] *See* MDS Letter, Exh. 1, at 57-58.

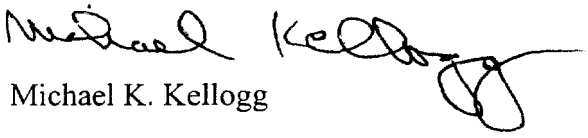
[33] MDS Letter at 4.

MDS. However, a review the full text of Mr. Andersen's e-mail to MDS reveals that Mr. Andersen did not attest to co-frequency sharing.[34] What Mr. Andersen did document, however, was that MDS had apparently stripped the conditional access off the Astra signal that it was retransmitting.[35]

Conclusion

Instead of coming forward with "solid proof that MDSI's technology works as claimed,"[36] MDS America has failed to demonstrate a single case of co-frequency operation with the BSS, much less the 20 commercial co-frequency operations it has claimed in its various filings before the Commission. Further, MDS now admits that much of the information provided to the Commission was false. What MDS dismisses as "minor inaccuracies" in its submissions add up to a long record before the Commission that contains *no credible evidence* supporting MDS's oft-repeated claim to be sharing spectrum with BSS services abroad – *i.e.*, using the same frequencies at the same time in the same place without causing harmful interference. Northpoint renews its suggestion that these repeated misstatements warrant an investigation by the Commission.

Yours sincerely,



Michael K. Kellogg

Counsel for Northpoint Technology, Ltd.

[34] *Id.*, Exh. 9 (Printout of e-mail from Erik Andersen to Kirk Kirkpatrick (May 15, 2001)).
[35] *Id.*
[36] MDS Letter at 2

CERTIFICATE OF SERVICE

I, Shannon Thrash, hereby certify that on this 7th day of June, 2001, copies of the foregoing were served by hand delivery following:

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